



VOSH Program Directive: 02-419(e-version)

Issued: May 12, 1989

Subject: Audiometric Testing Using Insert Phones

A. Purpose.

This Directive transmits OSHA Instruction CPL 2 (2/6/89), Audiometric Testing Using Insert Phones.

B. Scope.

This directive applies to all VOSH personnel and specifically to VOSH Health personnel.

C. Reference.

OSHA Instruction CPL 2 (2/6/89), Audiometric Testing Using Insert Phones.

D. Cancellation.

Not Applicable.

E. Action.

The Assistant Commissioner, Directors and Supervisors shall assure that VOSH personnel comply with policies and procedures contained in this directive.

F. Expiration Date.

February 28, 1990.

G. Background.

See attached CPL 2 (2/6/89). This directive adopts CPL 2(2/6/89) as VOSH policy.

Carol Amato

Commissioner

Attachment. OSHA Instruction CPL2 (2/6/89), Audiometric Testing Using Insert Phones.

Distribution: Commissioner of Labor and Industry
VOSH Assistant Commissioner
VOSH Technical Services Director
Directors and Supervisors
Safety and Health Staff
OSHA Regional Administrator, Region III



Reply to the Attention of:

OSHA Notice CPL 2

FEB 6 1989

Office of Health Compliance Assistance
Subject: Audiometric Testing Using Insert Phones

A. Purpose. This notice establishes the compliance procedure to follow if an employer is observed using insert phones for audiometric testing.

B. Scope. This notice applies OSHA-wide.

References.

1. Occupational Noise Exposure, 29 CFR 1910.95.
2. OSHA Instruction CPL 2.45A, April 18, 1983, Field Operations Manual (FOM).

C. Action. Regional Administrators and Area Directors shall ensure adherence to the enforcement policy presented in this notice.

D. Expiration Date. This notice expires February 28, 1990.

F. Federal Program Change. This notice describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this change is promptly forwarded to each State designee.
2. Explain the technical content of this change to the State designee as requested.
3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include (a) the State's plan to adopt and implement identical compliance procedures modified only to correspond to the State's structure, to follow if an employer uses insert phones for audiometric testing; (b) the State's plan to develop alternative procedures to those in the notice which are as effective; or, (c) the reasons why it is not necessary for the State to adopt the Federal procedures. Any alternative State policy must be submitted as a plan supplement within 6 Months.

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- ~ Review policies, instructions and guidelines issued by the State to determine if this change has been communicated to the State program personnel.

~ Insert Phone.

1. Description. An insert phone for audiometric testing relocates the source of audiometric test signals from the standard outer pinna area to a point approximately 12 millimeters inside the ear canal. This arrangement may exclude external noise more effectively and also may improve interaural isolation. It eliminates collapsed canal measurement problems and claims are also made for improved test repeatability.

- ~ Potential Logistic Advantage. The major logistic advantage that is foreseen for insert-type phones is the elimination of the need for an audiometric test room or booth.

- ~ Matters To Resolve. Use of these insert-type phones as opposed to the standard over-the-pinna (or supra-aural) ear phones will require correction factors due to the fact that an insert-type phone providing the same acoustic output as a supra-aural phone produces a different acoustic intensity in the ear canal. Moreover, requirements to ensure proper fit and requirements for proper calibration will be necessary. Etymotic Research of Elk Grove Village, Illinois, manufacturer of an insert-type phone it designates ER-3A, claims that the American National Standards Institute (ANSI) will approve their use within one year under American National Standard Specification for Audiometers, ANSI S3.6-1969. It is anticipated that ANSI S3.6 will address the correction factor and calibration questions.

~ Legal Facts.

1. Audiometer Requirements. At 29 CFR 1910.95(h)(2), the standard for occupational noise exposure states that audiometers shall meet the specifications of, and shall be maintained and used in accordance with, ANSI S3.6. Moreover, Appendix E of the standard only considers the standard Telephonics TDH-39 and TDH-49 supra-aural ear-phones in its discussion of the acoustic calibration of audiometers. No consideration is given to any other type of audiometric test source.

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~ Associated Audiometric Testing Requirements.

~ 29 CFR 1910.95(h)(4). Audiometric examinations shall be administered in a room meeting the requirements listed in Appendix D: Audiometric Test Rooms.

~ 29 CFR 1910.95(g)(7)(iii)(C). The audiologist, otolaryngologist, or physician shall review problem audiograms and shall determine whether there is a need for further evaluation. The employer shall provide to the person performing this evaluation the measurements of background sound pressure levels in the audiometric test room as required in Appendix D: Audiometric Test Rooms.

~ 29 CFR 1910.95(m)(2)(ii)(F). The employer shall maintain accurate records of the measurements of the background sound pressure levels in audiometric test rooms.

I. Reading Material. Some examples of material to read to acquire background information on insert phones follow.

1. Product information materials from manufacturers such as Etymotic Research, Elk Grove Village, Illinois.

~ Journal Articles.

~ Wilber L. Kruger B. Killion M. "Reference thresholds for the ER-3A insert earphone." J. Acoust. Soc. Am. 1988; 83:669-76.

~ Clemis J. Ballard W. Killion M. *Clinical use of an insert earphone.* Annals of Otolaryngology, Rhinology, and Laryngology 1986; 95:520-4.

i. Enforcement Policy.

1. Audiometric Measuring Instruments. Until such time as ANSI S3.6 recognizes the use of an insert phone as an acceptable method for audiometric testing and includes specifications for the method, and OSHA concurs by amending 29 CFR 1910.95, or by issuing a directive, any use of insert phones for the intended purpose of complying with the audiometric testing requirements in 29 CFR 1910.95 shall be considered a violation of 29 CFR 1910.95(h)(2).

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Associated Audiometric Testing Requirements. Employers using insert phones for audiometric testing may also be violating some of the other requirements of the noise standard quoted in this notice at H.2. Whenever employers are observed using insert phones for audiometric testing, always investigate compliance with these other requirements and issue citations for documented violations.

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Classifying and Grouping Violations and Proposing Penalties. Violations of 29 CFR 1910.95(h)(2) and associated violations of 29 CFR 1910.95(h)(4)(i)(C), or (m)(2)(ii)(P) shall all be classified as at least *other than serious.* Any more severe classification of violations, the grouping of violations, and the penalty proposals, shall be done in accordance with the guidelines in the FOM.

-s Thomas J. Shepich, Director

Directorate of Compliance Programs

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~~DIRECTOR~~ DIRECTOR, Compliance Program, Regional and Area Offices Compliance

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Project Managers